The First-generation Disadvantage in Four Year College Enrollment and Completion

Research Thesis

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by

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Abstract

In the United States, a bachelor's degree has become increasingly important in labor market outcomes and in attaining a semblance of economic security. However, not everyone has equal access to enrollment in four year colleges, or the ability to complete a bachelor's degree. Using nationally representative data from the Educational Longitudinal Study, I analyze the effect of being a first-generation student on enrollment in a four year college and completion of a bachelor's degree. I perform bivariate analysis as well as logistic regression analyses. My results indicate that being a first-generation student negatively impacts both enrollment and completion, net of other factors including socioeconomic status. My results do offer promising information regarding how these disadvantages might be ameliorated in the future, however.

INTRODUCTION

Disadvantages at the familial level have a greater impact on educational attainment than either school or community level disadvantages (Coleman 1960). Family income is certainly influential, yet other background attributes also matter, particularly for first-generation students (Hand and Payne 2008). Such students are often overwhelmed by the college application process, feel out of place as they shoulder the financial and emotional burdens of paying for

college, sustaining themselves, and leaving their families, simultaneously they must adjust to the social and academic demands of college (Armstrong and Hamilton 2013).

Such patterns are especially relevant for our understanding of inequality given the consequences of college and particularly BA completion for labor market outcomes (Torche 2011). Those from lower status families, however, do not have equal access to four year institutions, especially selective institutions, which would allow them to earn their BA (London 1993, Lovenhiem and Lockwood-Reynolds). Stratified processes are already in place before a student applies to college, and they persist. But how? In this paper, I examine background disadvantages in relation to both college attendance and completion. Doing so expands on what we already know regarding the impact of SES, by analyzing first generational status in particular, meaningful inequalities prior to college entry, and disparate processes during the collegiate years.

Using a nationally representative survey, the Educational Longitudinal Survey (ELS), I analyze specifically the stressors first-generation students' face in enrolling in four year institutions, and in completing their bachelor's degree. I expand upon Lareau's findings regarding differences in cultural capital transmission and parental involvement according to class but examine first-generational status specifically and high school-aged students, rather than fourth graders (Lareau 2011). I also expand on the work of Armstrong and Hamilton (2013) by examining pathways and stressors once in college, how they differ by social class and generational status, and what affect they have on college completion. Such inquiries are largely lacking in literature, and are crucial to understanding the intergenerational transmission of inequality.

Parental Involvement

Many studies have addressed parental involvement and the effects it has on educational outcomes for children across race/ethnic, gender, and class lines. For example, in her book *Unequal Childhoods: Class, Race, and Family Life,* Annette Lareau conducts an in depth ethnography, in which she studies the parenting styles of middle class, working class, and poor families, and the influence these styles have on children's ability to navigate successfully through institutions later in life. She asserts that parenting styles and the transmission of cultural capital is largely independent of race, instead differing by social class. Lareau finds that middle class parents engage in a parenting style she calls "concerted cultivation," which entails a heavy involvement in their child's academic and social lives. They specifically organize their children's free time by involving them in organized activities such as sports, music lessons, and foreign language courses. Poor/working class families, in contrast, engage in a parenting style more consistent with "accomplishment of natural growth," which entails less parental educational oversight.

Lareau suggests that middle class parenting styles result in an "emerging sense of entitlement". Such entitlement allows middle class youth to more successfully navigate institutions, such as higher education, with more ease than their poor and working class counterparts. Poor and working class students, conversely, express an "emerging sense of constraint". Such findings have been empirically supported in a 2009 study by Redford, Johnson, and Honnold.

Parental involvement has been shown to enhance educational achievement across groups, even among those who are at a high risk for lower educational and developmental outcomes, because it enhances a child's sense of self-efficacy, belief that education is important, and their

perception of control over educational outcomes (Hoover et al. 2005). Parental involvement thus would be particularly beneficial for students from the working class, who generally feel less control over their life outcomes, educational and other wise, than do middle and upper class individuals (Lubrano 2004, Hurst 2009). In the words of Lareau (2011), working class students have an "emerging sense of restraint," which may inhibit their success in navigating institutions, such as higher education, in turn affecting their ability to become upwardly mobile in the future.

Parental involvement can, however, work to combat this sense of restraint found in working class youth. It has been shown to increase a student's educational and career aspirations, even among students who come from low income backgrounds and whose parents have low levels of education (Castinello et al 2004). As Lareau found, low income parents are less likely to be involved in their children's education despite the fact that low income children would benefit the most from active participation by parents (Kim and Schneider 2005, Lareau 2011). This lack of involvement by low income parents is not a result of caring for their children less, but rather is more likely due to a lack of resources or to cultural beliefs about the role of the family in education (Drummond and Stipek 2004, Lareau 2011).

Low income parents have been found to be more involved in the early years of their children's education, or when requested by the school system, a teacher, or by their child (Lareau 2011, Drummond and Stipek 2004, Hoover et al. 2005). The tapering off of involvement by working class parents may be due to the fact that they often have low levels of education themselves and, as a result, feel unqualified or unable to help their children with their school work as their child advances (Drummond and Stipek 2004, Lareau 2011). Low income parents may also be less involved in their children's education because they tend to have more children, lower education, less money, and less time than middle class parents do (Hoover et al. 2005).

Rather than staging interventions as middle class parents do, working class parents tend to leave their children's education up to teachers, who they view as having expertise because they are professionals. In fact, middle class parents believe they should have a say in their children's education, and frequently intervene in the school system, altering the methods of the professionals who run it (Lareau 2011).

In the transition to college, low income parents are even less likely to be involved in the process than higher income parents who often have higher levels of education themselves. This is because low income parents don't know how to help their children, as they have mostly likely never gone through the process. Parents can learn to help through involvement in programs at the school and community level, such as FAFSA workshops, but often require pressure by their children to do so (Kim and Schneider 2005). Many low income and first-generation students have pointed to their parents as being uninformed about the application process, but, nevertheless, supportive even if they aren't proactively helping their child (Wilkins 2014, Hurst 2009).

Students whose parents have a college education are not only significantly more likely to graduate from high school (Pirog and Magee 1997) and attend college (Goldrick-Rab and Pfeffer 2009), they are also more likely to attend a selective college, which may lead to better job opportunities in the future (Pascarella 2004). First-generation and low income students have no way of assessing a good collegiate fit, and so they tend to "under match" (Venezia and Jaeger 2013, Stampnitzky 2006, Hurst 2009). In large part, this is due to educated parents having experience with higher education, which allows them to guide their children in a process that seems foreign and frustrating to parents with lower education. Parental involvement yields

greater results, and better opportunities, for their children. Based on this body of work, I expect the following:

> *The likelihood of college attendance and completion will vary by both generational status and class background, with those of first-generation status and low socioeconomic status at a disadvantage. Some of this disadvantage will be explained by levels of parental involvement.*

Social Closure and Familial Transmissions of Social and Cultural Capital

Transmission of social and cultural capital from parent to child has been strongly associated with educational outcomes and upward mobility (Coleman1960, DiMaggio 1982, Lichter 1993, Lareau 2011, etc.). Cultural capital can be defined as the "degree of ease and familiarity that one has with the dominant culture of a society" (Bills 2000). This degree of ease and familiarity with cultural capital is largely passed from parent to child, and can be obtained through museum visits, reading books, travel etc. The culture of the dominant class is often thought to be the "right" or "legitimate" culture, and as such is valued more highly than cultures of the lower classes, which is especially problematic at an institutional/structural level. Culture is used as an avenue to commit social closure. Social class must be reproduced from generation to generation. Higher social classes practice social closure, or restricting/denying resources to the lower classes that would allow them to become upwardly mobile, doing so in order to secure their family's place in the class hierarchy (Kaufman 2005).

Since education is a gateway to upward mobility, those who already hold a place in the middle/upper classes often make social adaptations in order to be sure their offspring aren't downwardly mobile, while simultaneously keeping lower classes from advancing (Alon 2009). For middle class children, the question typically isn't whether or not they are going to college, but rather where they are going. This unquestioning reproduction of parents' social class results

from a college going habitus, instilled by parents at a young age (Hurst 2009, Kaufman 2005). The increasing importance of *where* one earns a college degree, rather than just earning a college degree in order to secure a middle class job is a damaging example of social closure. Low income and first-generation students are severely underrepresented in prestigious four year institutions, which may grant them access to a good job and upward mobility, while they are overrepresented in two year institutions, typically resulting in low wage jobs and little to no mobility (London 1993, Lovenhiem and Lockwood-Reynolds 2011). By valuing certain cultural characteristics more than others, and performing social closure to maintain class position, working class people are at a distinct disadvantage when compared to their middle/ upper class counterparts whose culture is more highly valued.

Lareau and others have documented the processes through which middle class parents pass cultural and social capital on to their children, which then shapes their interactions with institutions and those in power into successful ones (Lareau 2011). Children of poor/working class families, however, are less successful in navigating these same institutions because they do not have the same type of cultural and social capital passed on to them (Lareau 2011). Those who possess the "correct" cultural capital have an edge over those of the same education level who do not (Wildhagen 2009). Middle class students, whose parents practice concerted cultivation, appear to be at ease in their studies, leading their success to be attributed to their "natural talent" rather than conditions under which they have been brought up (Andersen and Hansen 2012). Low income students, whose parents practice natural growth, are less likely to exhibit the same level of ease in their studies, are instead praised for their hard work and obedience, and are often assumed to be less academically inclined as their middle class counterparts (Andersen and Hansen 2010). A study by DiMaggio (1982) supports cultural

reproduction and mobility models, finding that participation in prestigious status cultures has a positive impact on high school grades in all subjects, meaning that as cultural capital increases so do high school students grades.

High school grades and participation in cultural capital laden activities, such as music or foreign language lessons, offer a leg up in the college admission process, especially in admission to selective institutions. A study of admission practices of Harvard throughout the years, by Stampnitzky (2006), has shown that possessing the "correct" cultural capital has become more important in admission decisions than are academic criteria, such as standardized test scores. She found that after World War II, admissions were seemingly becoming more meritocratic than they ever had been as admissions judged candidates most heavily on test scores. In the years to follow, Harvard became concerned with their social reputation, even stating that they didn't want an "army of future Ph.D.'s," (Stampitzky 2006). To remedy this, admissions began recruiting "well-rounded" students, or those who were socially, rather than academically, focused and possessed the cultural and social capital they were looking for (Stampnitzky 2006).

This focus on "well-rounded," cultured students excludes many who would have previously been admitted based on academic criterion. This heavily contributes to the inequalities that first-generation and low income students face when being admitted to college, and, unfortunately, these practices are not just specific to Harvard. As a college becomes more prestigious academically, easily being able to recruit students with high standardized test scores and pristine academic records, they begin to look for qualities students possess outside of the classroom. They look for involvement in extracurricular activities, leadership roles, specific personality characteristics, and volunteer work among other things. Although it is discrete, all of these things denote a privileged student, who are most likely to possess the "right" type of

cultural/social capital. These criterion allow admission boards to exclude many first-generation students from admission, who may not have had the opportunity to participate in these activities/ capacities. In short, the use of symbolic admission criterion is a mechanism being built into institutions to perform social closure. Specifically, it keeps those from lower classes from gaining admission and effectively stifling their mobility before they even get a chance to work towards it.

Unfortunately, these class based inequalities increase as a student transitions from primary education to secondary education because these symbolic aspects of judgement, such as the way one speaks and the way one is dressed, become more and more important (Andersen and Hansen 2012). Middle class children who have inherited the "right" cultural capital from their parents successfully navigate these symbolic aspects of judgement with more ease and success than their working class counter parts (Lareau 2011). They are more likely to know how to converse, dress, and hold themselves in ways that will impress those with authority. Lareau found that through involvement in organized activities, such as sports or music lessons, children not only learn skills particular to that activity, they also learn how to navigate an organization and interact with adults in powerful positions (Lareau 2011).

The ability to navigate institutions and interact with those in power only serves to benefit middle class children in the college application process, as well as in their transition to college. If working class children are involved in organized activities, on average, they are not involved in as many as their middle class counterparts, leading them to be less effective in navigating institutions and in interacting with people in power. Working class children are taught to respect boundaries set by adults and to obey without questioning the authority of the adult. Later in life this may put working class students at a disadvantage in that they don't question authority

figures (in an efficient and productive way) and are less likely to assert their own will (Lareau 2011). This leads to a second, related expectation:

> *Beyond direct forms of educational involvement, first-generational and social class inequalities in college attendance and completion will be explained, in part, by inequalities in cultural capital.*

The Struggle between Family Ties, Self-identity, and College Adjustment

If a first-generation/ low income student does defeat the odds and enroll in college, they still face many challenges once they get there, challenges that are distinctly relative to those of their middle class peers. These challenges include: maintaining a sense of belonging in their close knit families and among their friends from home, adjusting to social and financial pressures in college, as well as wrestling with their own identity. These stressors from home, social adjustments, and financial worries can have a great impact on a student's social integration, educational outcomes, and, consequently, on their ability to be upwardly mobile.

Maintaining family ties has proven to be more difficult for first-generation/ low income students than for traditional students. It has been found that, working class people, from whom first-generation students often emerge, have stronger ties with family than do middle class people (Lareau 2011). Relationships to the family, especially among first-generation students, have a critical impact on their college experience (London 1989, 1993,1996). In London's studies regarding first-generation students and their transition to college, he asserts that there are three main types of familial bonds, although any combination of the three can be employed: bound, delegated, and expelled (London 1989). Parents who engage in "binding," convince their child that they (the parents) need them, and that any glimpse of independence on the child's part is "treason" against the family unit. Parents who practice delegation live out their dreams of mobility through their children by sending them out in the world, even if it is not in the best

interests of the child. Loyalty in these families is expressed by leaving the family unit and fulfilling parental aspirations. The third type of familial bond London (1989) discusses is expulsion, in which a child is completely pushed from the nest. This can help a child succeed in that they feel no guilt in leaving the family, but it may also be harmful in that they are no longer a full member of the family.

Leaving home for first-generation students is not a rite of passage as it is for their middle class peers, but rather entails severing ties that eventually separates them from the "emotional and labor ecosystems," they were once an vital part of (Armstrong and Hamilton 2013). They often feel guilty that they are committing "treason," or betraying their family after they leave home and become consumed with their coursework, and the jobs they must take in order to sustain themselves. They often feel that their parents wanted more for themselves but were unable to realize their goals for various reasons, many being financial, and so they are responsible for living out these dreams for their parents (London 1989, Gofen 2009).

First-generation students may also feel that they are not a part of their family after they transition to college because they have inevitably changed in the process (Hand and Payne 2008, Armstrong and Hamilton 2013). They feel that they are being pulled between self-discovery and their home life, which they feel increasingly left out of (Hand and Payne 2008, Armstrong and Hamilton 2013). Often, the parents of first-generation and low income students are afraid of losing their child to education, fearing that the child will become upwardly mobile and develop the notion that they are better than their family (London 1989, Lubrano 2004, Armstrong and 2013). Family and peers from home may see the changes first-generation students are undergoing in college as a personal rejection of them and their way of life, a life that they have worked hard to achieve (Rubin 1976, Hurst 2009). This explains some of the ambivalence, or

even outright hostility, that students may feel from home. Some students are able to separate themselves from these family-related stressors, while others succumb to the pressure and move back closer to home, often transferring to a community college or quitting college altogether in the process.

First-generation students often find that although they do not feel they completely fit in their old world at home, they also don't fit in their new world in college either. Moving to a residential college can be quite a culture shock for first-generation/ low income students who come from modest backgrounds (Armstrong and Hamilton 2013, Wilkins 2014). Many of these students held jobs in high school, and continue to do so in college in order to make ends meet. Struggling to cope with demands from home, whether it be family, old friends, or intimate partners, compounded by financial constraints often take a toll on first-generation studnetts and inhibit their ability to form connections with peers, especially in their critical first year of college (Armstrong and Hamilton 2013, Wilkins 2014). Some first-generation students try to fit in with their middle/ upper class peers by participating in the party scene, and even go as far as to choose "easy majors" that allow them to meet the demands of work, school, family, and social life (Armstrong and Hamilton 2013). They typically do not realize that they will not achieve upward mobility with these "easy majors," because they do not possess the "correct" social and cultural capital that would allow them to do so, unlike their middle/ upper class peers (Armstrong and Hamilton 2013).Often these students end up in jobs that do not require a college degree, or even end up dropping out, potentially resulting in downward mobility (Armstrong and Hamilton 2013).

Rather than trying to fit in, some first-generation students decide to emphasize differences between themselves and their privileged peers. To do this they often emphasize their

blue collar work ethic, stay out of the party scene, and major in something "practical," such as nursing or teaching (Armstrong and Hamilton 2013, Wilkins 2014). They take their academics and their jobs seriously (Armstrong and Hamilton 2013). In doing so, they often socially isolate themselves from peers, compounding their isolation from family and friends back home (Armstrong and Hamilton 2013). Since they do not quite fit into either their old world at home or their new world in college, they often feel that they are in a state of "limbo" (Lubrano 2004). This feeling of "limbo" results in students switching between two identities, one is agreeable with their working class roots when they are at home, and one that is agreeable with their middle/upper class atmosphere at school and/ or work (Lubrano 2004, Wilkins 2014, London 1993).

First-generation students' academic choices also have a huge impact on their college experience, and on their ability to be upwardly mobile. Middle/upper class students usually rely on guidance from parents, rather than solely relying on guidance at the university level (Armstrong and Hamilton 2013). This gives them the upper hand in navigating institutions and in finding a path suitable to them (Armstrong and Hamilton 2013). Working class parents, especially parents of first-generation students, are less likely to be able to effectively guide their children down professional or upwardly mobile pathways (Armstrong and Hamilton 2013). Middle/upper class parents help their child choose the right college major, choose which organizations to get involved in (or stay out of), and which dorm to live in (Armstrong and Hamilton 2013, Pascarella 2004). If a working class student is able to navigate all of these obstacles on their own and manages to graduate from college, their parents lack the know-how and/or the connections to guide their children into stable jobs, as middle to upper class parents so often do (Armstrong and Hamilton 2013).

First-generation students typically take fewer course hours and are less involved in extracurricular activities, most likely because they have to work more hours per week than their more privileged peers. They are also less likely to take humanities and arts courses (Terinzini 1996, Pascarella 2004), possibly because they seem impractical and wasteful. These constraints make it impossible for first-generation to have the full college experience, and explore their identities through social integration and deep involvement in activities and course work as their more privileged peers (Pascarella 2004). Such research extends predictions regarding college completion. Specifically, I expect that:

> *Variations in the college experience, and specifically family pressures regarding residence, the need to work, curricular and extracurricular involvement, and stressful personal and family experiences during the college years themselves will explain some of the gap in college completion.*

DATA AND MEASURMENT

I draw from four waves of the Educational Longitudinal Survey (ELS), which is a large nationally representative survey. The base year of the ELS began in 2002, surveying 10th graders their parents, math and English teachers, school principals, and heads of the school library/media center. 750 high schools were selected to take part in the survey, students from each high school were then randomly selected to take part in the survey, totaling over 16,197 students and their parents. The first wave follow up was conducted in 2004, surveys were given to high school seniors, dropouts, early completers, and school administrators. The second wave follow up was conducted in 2006. It surveyed students who dropped out, enrolled in college, or went straight to work after high school. The third wave follow up was conducted in 2012, 8 years out of high

school. It includes retrospective data on college enrollment, employment, marital status, families, and civic engagement.

College Attendance and Completion

Outcomes of interest include: enrollment in college and completion of a bachelor's degree. For the purpose of this study, I have decided to define college enrollment as enrollment in a four year institution at any time during the survey. Completion of a bachelor's degree is a dichotomous variable. Those who didn't complete their BA were coded "0," those who did complete their BA were coded "1".

Family Background and First-Generation Status

The measure of SES here uses 1989 GSS occupational prestige scores. It is based on five components, all weighted equally: father's education, mother's education, father's occupation, mother's education, and family income. First-generation status is captured using a separate measure of parental education, specifically denoting that neither of the student's parents hold at least a bachelor's degree (=1; referent=0)

Cultural Capital and Parental Involvement

I use the base year survey to measure cultural capital, parental involvement, and college savings during respondents 10^{th} grade year. To measure cultural capital I create a standardized scale

which includes participating in music lessons, foreign language classes, attending plays/concerts with parents, and discussing world/community events with parents(alpha= 0.70). Parental educational involvement is also a standardized scale, including measures of checking homework, helping with homework, discussing courses, discussing school activities, discussing things learned in school, and discussing grades with 10th grader (alpha= 0.98). Parental curricular involvement, a standardized scale, includes measures of the frequency with which parents contacted their 10th graders school, and if parents provided advice on scheduling courses (alpha= 0. 89). College related parental involvement is measured as a standardized scale, including how often a parent discussed college with their 10th grader and whether or not they discussed taking the ACT/SAT with them (alpha= 0.97). I also create a standardized scale to capture college savings, including information on both student and parent savings efforts (alpha= 0.84).

College Experiences and Stressors

Using measures such as number of hours worked per week, reason for working in college, involvement in high impact and extracurricular activities, I capture integration into college life. Hours worked per week is measured categorically in 10 hour increments, ranging from 5 to 55+ hours worked per week. Reason for working is measured dichotomously. If a student answered that they were working to pay tuition, fees, and living expenses they were coded as a "1," all others responses were coded as a "0". Both hours per week worked and reason for working were taken from the second wave of the ELS, the students first year in college.

Involvement in extracurricular activities is defined as participation in non-sports related activities at the college level. It is also a categorical variable as students chose if they "never," "often," or "sometimes" participated in extracurricular activities, during their first year of

college. I create a standardized scale to capture involvement in “high impact” curricular activities at any point during college. High impact curricular activities include: participating in a research project with faculty outside of course or program requirements, study abroad trip, a community based project as part of regular course work, a culminating senior experience such as capstone course, senior thesis or project, comprehensive exam, or a project in which the student was mentored (alpha=0.99).

Family-related stressors are captured in a variety of ways. I use the first wave of the ELS, respondents’ senior year of high school, to measure how important it is to the student to live close to home during college. I dichotomously measure living arrangements during the students’ second year of college. I also use the second wave data to measure the number of stressful life events that have occurred in the respondents’ first two years of college. Stressful life events are as follows: your parents divorced, parent or guardian lost their job, a parent/guardian died, a close relative or friend died, respondent became seriously ill or disabled, a family member became seriously ill or disabled, or respondent was the victim of a violent crime.

Controls

Being a female is an advantage in completing a four year degree (Buchmann and DiPrete 2006), thus it is necessary to control for it. I utilize three controls for race in my models, Asian, Hispanic, and African American. All race variables are dummy variables, with the racial category of interest coded as a “1” and all others as “0”. Hispanic and African American high school students are disparately disadvantaged in the college going process, as well as in completing a four year degree. Asian Americans, on the other hand, have been found to have an advantage in college enrollment rates as well as in college completion. I also control for rurality and urbanicity in my models. Both are dummy variables. In the rurality variable, rurality is coded

as “1” and all others as “0”. The same is true for the urbancity variable, urbanicity is coded as “1” and all others are coded as “0”.

ANALYTIC STRATEGY AND RESULTS

I begin my analyses with a discussion of bivariate results, in the form of means comparisons, reported in Table 1. These comparisons are important in their own right, highlighting distinct patterns of college attendance and completion for first generation and non-first-generation students, as well as disparities across family background and college experience indicators.

I then turn to the results of my logistic regression analyses. The core focus of these analyses is on disparities between students whose parents have earned a bachelor’s degree or higher (non-first-generation students) versus those whose parents have not earned a bachelor’s degree (first-generation students). First, in Table 2, and drawing from the entire high school sample, I examine the impact of family background characteristics, such as SES and parental involvement during the high school years, on enrollment in a four-year college. Model 1 highlights baseline inequalities in college attendance. This is followed by the addition of SES and then other family background attributes to the modeling to see the extent to which first-generation deficits in attendance are explained. All models control for race/ethnic, gender, and urban/rural status.

Table 3 undertakes similar analyses, but now drawing only on the college-attending sample. The focus here is on the likelihood of completion. Like the prior analyses, I first introduce first-generational status to gauge the gap in the likelihood of BA completion compared to their non-first-generation counterparts. Models 2 and 3 add the now familiar family SES and background attributes, while Model 4 introduces indicators specific to the college experience. As was the case with Table 2, the core focus is on first-generation disparities and the extent to

which they are explained by many of the inequalities introduced and evident in the means comparisons presented in Table 1.

Baseline Inequalities Between First-Generation and Non-First-Generation Students

Table 1 compares first-generation and non-first generation means across variables of interest for the overall high school sample (used in analyses of college attendance) and for the college attending sample (used in analyses of college completion). There are obvious disparities in both who attend four-year colleges, and who complete their bachelor's degree. On average, first-generation students are 30% less likely to enroll in a four year college than are their non-first-generation counterparts. This is a statistically significant difference at the $P < 0.05$ level. Disadvantage persists among first-generation students who do enroll in four year colleges, as they are about 20% less likely than their counterparts to complete their bachelor's degree, on average. This finding is also statistically significant at the $P<0.05$ level.

Socioeconomic status also differs significantly between first-generation and non-first-generation students, advantaging the latter, in both the full sample of high school students and the sample of students who enroll in four year college. There is an especially large gap between first-generation students and others who enroll in a four year colleges. Cultural capital, parental involvement in high school education, parental curricular involvement, college-related involvement, and student/parent college savings are all significantly higher, on average, for non-first-generation students in the full sample of high school students. These differences remain significant for the sample of students who attend four year colleges. All of these family

background factors have the potential to play a large role in determining who goes to college and who finishes college, obviously putting first-generation students at a greater risk in both arenas.

Table 1. Means Differences for Full and College Attending Sample	**Full Sample of all High School Students**		**4 Year College Attenders**	
	First-generation Students	Non-first-generation Students	First-generation Students	Non- first-generation Students
Educational Outcomes				
Enrolled in 4 year Institution	0.404	0.696*	N/A	N/A
Baccalaureate Completion	N/A	N/A	0.488	0.699*
Background & Parental Involvement				
Socioeconomic Status	0.456	0.662*	-0.303	0.775*
Cultural Capital	2.122	2.341*	2.210	2.387*
Parental Interaction w HS Education	2.265	2.409*	2.329	2.448*
Parent HS Curricular Involvement	1.807	1.904*	1.829	1.914*
College Parental Involvement	1.966	2.171*	2.096	2.228*
Student/Parents Saving for College	0.284	0.525*	0.361	0.593*
College Specific Experiences				
Average Hours Worked per Week			11.626	8.690*
Work Earnings Go To Tuition, Etc			0.225	0.158*
Lives in Parents' Household			0.406	0.248*
Importance of Living at Home			0.466	0.267*
High Impact Curricular Activities			0.164	0.249*
Extracurricular Integration			1.542	1.927*
Stressful Events During College			0.965	0.795*
Controls				
Female	0.504	0.500	0.577	0.531*
African American	0.150	0.105	0.090	0.150*
Hispanic	0.185	0.088	0.070	0.140*
Asian	0.080	0.117*	0.120	0.100*
Rural	0.213	0.146	0.192	0.136*
Urban	0.313	0.360*	0.346	0.375*
Sample Size	**n=9,018**	**n=6,303**	**n=3,640**	**n=4,388**

* denotes statistically significant group mean difference under the P < .05 level (two-tailed tests)

Especially notable and novel to my particular analysis is consideration of college-specific experiences, highlighted in the last two columns of Table 1. Of those attending college, first-generation students are notably disadvantaged. Since first-generation students are significantly more likely to work for the purpose of paying tuition, fees, and living expenses, it is no surprise that they are likely to work significantly more each week than their counterparts on average. Long work weeks make it more difficult to integrate into extracurricular activities, along with other aspects of college life. As we see in Table1, first-generation students are, in fact, less likely to be involved in extracurricular activities and in high impact curricular activities, such as research with a faculty member or study abroad programs etc.

First-generation students are also more likely to experience persistent disadvantages by way of personal stressors. Since first-generation students are more likely to view living in their parents' home while attending college as important, it comes as no surprise that they are more likely to actually live at home while attending a four year college than their peers. This may be a result of financial constraints, or it may arise from being too integral a part of their families "emotional and labor ecosystems" to separate themselves from it completely (Armstrong and Hamilton 2013). Finally, first-generation students, on average, are significantly more likely to experience personal and family-related stressful life events during their college years. Such differences clearly exist by group, but to what extent might they contribute to gaps we find in college attendance and completion? This is precisely the question that the logistic regressions that follow tackle.

Four-Year College Enrollment and First-Generation Students

In Table 2, I test the extent to which the first-generation gap in college attendance is accounted for by broader inequalities in family background, such as socioeconomic status, parental involvement, and college savings. Model 1 shows that, controlling for gender, race/ethnicity, and urban/rural status, first-generation students are less likely than their counterparts to enroll in a four year college. Converting the log-odds into odds ratios for interpretability, this gap equates to first-generation students being 68% less likely to attend a four year college. The gap between first-generation students, and non-first-generation students, remains statistically significant in Model 2 although it declines relatively substantially to 28%, suggesting that the pattern is at least partially a function of broader family inequalities in SES. The first-generation effect declines even more in Model 3, yet remains consequential. These models explain roughly three quarters of the overall disadvantages faced by first-generation students in four year college enrollment.

Background measures, such as SES and parental involvement, are significant in college attendance. Expectedly, as socioeconomic status (SES) increases, so does the likelihood of enrolling in a four year college. As alluded to earlier, in itself SES explains a significant portion of the disadvantages faced by first-generation students, who are more likely than their counterparts to come from a low-income households. This impact of SES declines somewhat in Model 3 with the addition of measures of cultural capital, parental involvement and savings, all of which have been shown in prior work to be related.

Cultural capital, college related parental involvement, and student/parent savings prove to be particularly important, and statistically significant, factors in who attends college and who doesn't. Students who possess cultural capital, such as participating in music/art/language classes, attending plays or concerts, and discussing world or community events with parents, are 80% more likely to enroll in a four year college than those who have none. If a parent discusses

college with their 10th grader, or discusses taking the ACT/SAT, those students are 30% more likely to enroll in a four year college. If the student and/or parent save for college, the odds of attending a 4 year college increases by 66%. Although these models do explain a large portion of the disadvantage of first-generation students face in enrolling in a four year college, we see the generational-status disadvantage persists somewhat, with a 27% gap in enrollment unexplained.

Table2: Logistic Regression Estimates (Log-Odds) of Likelihood of Four Year College Enrollment (Full High School Sample)

	Model 1	**Model 2**	**Model 3**
First-generation	-1.138***	-0.335***	-0.316***
Background &Parental Involvement			
Socioeconomic Status		0.809***	0.623***
Cultural Capital			0.175***
Parental Interaction w HS Education			-0.043
Parental HS Curricular Involvement			-0.060
College Parental Involvement			0.533***
Student/ Parents Savings for College			0.509***
Controls			
Female	0.471***	0.509***	0.442***
African American	-0.438***	-0.241***	-0.322***
Hispanic	-0.781***	-0.541***	-0.563***
Asian	0.042	0.250***	0.220**
Rural	-0.213***	-0.142**	-0.138**
Urban	0.295***	0.300**	.301***
Constant	0.654***	.051	-1.362***
Sample Size	**n=15,321**	**n=15,321**	**n=15,321**

***** P < .001 ** p < .01 * p < .01 (two-tailed tests of significance)**

Completion of Bachelor's Degree and the First-generation Disadvantage

As denoted earlier in Table 1, there is a large gap between first-generation students and non-first-generation students and their 4-year college completion rates. Table 3 reports logistic regression analyses of this first-generation student effect (Model 1) and the extent it is explained by background disparities in SES (Model 2), other background attributes and parental investments (Model 3), and college-specific experiences (Model 4).

In Model 1 we see that first-generation students who enroll in a four year college are less likely to complete their bachelor's degree than are non-first-generation students, holding constant sex, race/ethnicity, and rural status. Converting log-odds into odds ratios for interpretability, we find a gap of nearly 58%. This disadvantage persists in the Models 2 and 3 with the addition of SES and other background attributes, but is cut by nearly half. Model 4, which introduces college specific experiences, such as working, participation in extracurricular and high impact curricular activities, and family stressors, accounts for an additional 8% of the disadvantage faced by first-generation college students. In all, over half of the first generation gap is explained by the modeling presented.

Among other key indicators, SES explains roughly 25% of the disadvantage faced by first-generation students in completing college (compare models 1 and 2). Since non-first-generation students are more likely to have a higher SES, they are more likely to complete college. In Models 3 and 4 the effect of SES on college completion remains significant although appears to be mediated by both other background characteristics and college specific experiences. In both Models 3 and 4, parental involvement in high school education is a significant factor in graduating from college. College related parental involvement during the high school years is also significantly linked to the likelihood of graduation in Models 3 and 4, as

is student/ parent savings. As we know from Table 1, first-generation students are less likely to have parental involvement, college related and otherwise, while in high school, than are non-first-generation students. The same can be said of student/ parent college savings. This means that first-generation college students are at a distinct disadvantage in bachelor's completion and that a large portion of this disadvantage comes from SES and related disadvantages.

Background disadvantages are clearly also compounded and, to some extent, mediated by college specific experiences. Working while in college has a negative effect on college completion, and as was suggested earlier in Table 1. First-generation students are likely to work significantly more hours per week than their peers on average. Feeling that it is important to live at home during college, and actually living at home during college both negatively affect chances of college completion. Actually living at home during college decreases a student's chances of completing a bachelor's by about 35%. Experiencing personal and family related stressful life events, which first generation student do at a higher rate, decreases the odds of completing a bachelor's degree by up to 17% (2.5% for every stressful life event that occurs).

Integration during the college years also matters. Participation in extracurricular activities while in college increases a student's chances of graduating by nearly half, putting firs-generation students at a disadvantage since they are less likely to participate in these activities. Participation in one high impact activity increases the chance of college completion by nearly 3%. Participation in multiple high impact activities can increases the chances of completing a bachelor's degree by nearly 15%. As we saw earlier in Table 1, first-generation students are significantly less likely to participate in these activities, on average.

Table 3: Logistic Regression Estimates (Log-Odds) of Likelihood of Four Year College Degree (BA/BS) Completion (College Attending Sample)

	Model 1	Model 2	Model 3	Model 4
First-generation	-0.878***	-0.415***	-0.407**	-0.301***
Background & Parental Involvement				
Socioeconomic Status		0.408***	0.332***	0.155**
Cultural Capital			-0.053	-0.180**
Parental Interaction w HS Education			0.045*	0.047
Parental HS Curricular Involvement			-0.122*	-0.130*
College Related Parental Involvement			0.305***	0.174**
Student/ Parents Saving for College			0.301***	0.193***
College Specific Experiences				
Average Hours Worked per Week				-0.008***
Work Earnings Go to Tuition, Etc.				0.062
Lives in Parents' Household				-0.438***
Importance of Living at Home				-0.180**
High Impact Curricular Activities				2.665***
Extracurricular Integration				0.427***
Stressful Events During College				-0.189***
Controls				
Female	0.243***	0.264***	0.236***	0.179**
African American	-0.892***	-0.792***	-0.825***	-0.729***
Hispanic	-0.470***	-0.369***	-0.382**	-0.220*
Asian	0.174*	0.293***	0.283**	0.299**
Rural	-0.117*	-0.084	-0.078	-0.067
Urban	0.104*	0.097*	0.106*	0.081
Constant	0.796***	0.448***	-0.075	-0.116
Sample Size	**n=8,028**	**n=8,028**	**n=8,028**	**n=8,028**

***** P < .001 ** p < .01 * p < .01 (two-tailed tests of significance)**

DISCUSSION AND CONCLUSIONS

To date, studies of first-generation college students are largely absent from the literature, despite the disparities they face in both enrolling in a four year college and completing their bachelor's degree. The key findings presented by this study make these disparities difficult to ignore. First-generation students are nearly 70% less likely than their non-first-generation counterparts to enroll in a four year college. This disadvantage persists among those who do matriculate to college with first-generation students nearly 60% less likely to graduate than their counterparts. Huge disparities such as these demand the attention of scholars and policy makers alike.

The results of this study provide support for my first hypothesis. The likelihood of college attendance and completion do in fact vary by class background and generational status, which are partially explained by measures of parental involvement. The first-generational disadvantage in enrollment and completion is strongly shaped by socioeconomic status. However, the first-generation disadvantage persists even when SES is accounted for. Those of low socioeconomic status and first-generation status are surely at the greatest disadvantage, but even as SES increases the first-generation disadvantage is not eliminated. In accordance with previous research, my results show that parental involvement is a significant factor in college enrollment and completion (Lareau 2011). Novel to my particular analysis, I find that parental involvement during the high school years is a significant factor in four year college enrollment and completion, putting first-generation students at a disadvantage since they are less likely to experience as much parental involvement.

The second hypothesis is also supported by the results of this study. Inequalities in cultural capital do account for a significant portion of the first-generation disadvantage in college enrollment especially, net of other factors such as SES and parental involvement. Possession of

cultural capital is used to perform social closure, disparately impacting firs-generation students who are less likely to possess the "correct" forms of cultural capital. Unique to my analyses, I find that the transmission of cultural capital from parent to child during the high school years is significant for college enrollment and completion, leaving first-generation students at a distinct disadvantage.

Finally, this study finds support for my third hypothesis. College specific experiences and family stressors play a significant role in college completion. College specific experiences such as involvement in extracurricular activities and high impact curricular activities, such as study abroad and research with a faculty member, increase the likelihood of graduating. Unsurprisingly, working while in college, living at home, and experiencing personal and family related stressful events during the college years significantly decrease the odds of graduating from college. First-generation students are significantly less likely to be involved in extracurricular and high impact activities. They are more likely to work longer hours, live at home, and experience personal and family related stressful events. These compounding disadvantages are detrimental to the success of first-generation college students.

Like any analyses, this study has limitations. Limiting the scope of this study to four year college enrollment and completion may result in missing part of a larger stratified process occurring in 2 year college attendance and completion disproportionately impacting first-generation students. Past research has found that there are larger, more sustainable labor market returns among those who earn a bachelor's degree than among those who earn a two year degree (Torche 2011). This may result in an underestimation of the first-generation disadvantage in my study and certainly warrants further attention. I was also unable to capture institutional selectivity in my analyses, which resulted in limiting analyses to four year public and private

colleges. I predict that accounting for institutional selectivity would exacerbate my findings, putting first-generation students at an even larger disadvantage in enrollment, completion, and eventually in labor market outcomes. Finally, although the Educational Longitudinal Survey is a rich nationally representative data set, it provides little information on *how* certain factors, such as parental involvement or family stressors etc., impact four year college enrollment and completion. Unfortunately, it is beyond the scope of this study to engage in qualitative analyses that may unearth very important processes getting at the specifics of *how* these factors result in a first-generation disadvantage. This would be a promising avenue for future research.

The analysis of first-generation students is a particularly relevant, yet understudied avenue in educational inequality literature, and stratification literature in general. Further pursuit of this line of study may yield much needed policy implications. These may include programs at the high school level to encourage parental participation in college planning regardless of family characteristics, as well as opportunities for all students, regardless of ability to pay, to participate in cultural activities such as concerts, plays, and museum visits. To ameliorate disadvantages faced by first-generation students during the college years, policies could be implemented to make college more affordable. This could lead to a decrease in the number of hours students have to work as well as decrease the need to live at home during college. Decreasing financial stressors may lead to increasing involvement of first-generation students in college experiences that significantly increase the odds of graduating, such as extracurriculars and other high impact activities. Further study of the disadvantages faced by first-generation college students, both quantitative and qualitative, is needed so that policies may be implemented quickly and efficiently to combat these issues and promote success for students of all backgrounds.

References

Alon, Sigal. "The Evolution of Class Inequality in Higher Education: Competition, Exclusion, and Adaptation." *American Sociological Review*. 74.5 (2009): 731-755.

Altschul, I. (February 01, 2012). Linking Socioeconomic Status to the Academic Achievement of Mexican American Youth Through Parent Involvement in Education. *Journal of the Society for Social Work and Research, 3,* 1, 13-30.

Andersen, P. L., & Hansen, M. N. (October 01, 2012). Class and cultural capital - The case of class inequality in educational performance. *European Sociological Review, 28,* 5, 607-621.

Armstrong, E., & Hamilton, L. (2013). *Paying for the Party: How College Maintains Inequality*. Cambridge, Massachussetts and London, England: Harvard University Press.

Buchmann, Claudia, and Thomas A. DiPrete. "The Growing Female Advantage in College Completion: the Role of Family Background and Academic Achievement." *American Sociological Review*. 71.4 (2006): 515-541. Print.

Cohen-Vogel, L., Goldring, E., & Smrekar, C. (November 01, 2010). The Influence of Local Conditions on Social Service Partnerships, Parent Involvement, and Community Engagement in Neighborhood Schools. *American Journal of Education, 117,* 1, 51-78.

DiMaggio, P. (April 01, 1982). Cultural Capital and School Success: The Impact of Status Culture Participation on the Grades of U.S. High School Students. *American Sociological Review, 47,* 2, 189-201.

Drewry, J., Burge, P., & Driscoll, L. (January 01, 2010). A Tripartite Perspective of Social Capital and Its Access by High School Dropouts. *Education and Urban Society, 42,* 5, 499-521.

Drummond, K. V., & Stipek, D. (January 01, 2004). Low-Income Parents' Beliefs About their Role in Children's Academic Learning. *Elementary School Journal, 104,* 3, 197.

Gofen, A. (February 01, 2009). Family Capital: How First-Generation Higher Education Students Break the Intergenerational Cycle. *Family Relations, 58,* 1, 104-120.

Goldrick-Rab, S., & Pfeffer, F. T. (April 01, 2009). Beyond Access: Explaining Socioeconomic Differences in College Transfer. *Sociology of Education, 82,* 2, 101-125.

Grodsky, E., & Rieglecrumb, C. (January 01, 2010). Those Who Choose and Those Who Don't: Social Background and College Orientation. *Annals of the American Academy of Political and Social Science, 627,* 14-35.

Hand, C., & Payne, E. M. (October 01, 2008). First-Generation College Students: A Study of Appalachian Student Success. *Journal of Developmental Education, 32,* 1, 4-15.

Hill, N. E., Castellino, D. R., Lansford, J. E., Nowlin, P., Dodge, K. A., Bates, J. E., & Pettit, G. S. (September 01, 2004). Parent Academic Involvement as Related to School Behavior, Achievement, and Aspirations: Demographic Variations Across Adolescence. *Child Development, 75,* 5, 1491-1509.

Hoover-Dempsey, K. V., Walker, J. M. T., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S., & Closson, K. (November 01, 2005). Why Do Parents Become Involved? Research Findings and Implications. *Elementary School Journal, 106,* 2, 105.

Hurst, A. L. (January 01, 2009). The Path to College: Stories of Students from the Working Class. *Race, Gender & Class, 16,* 257-281.

Kim, J., & Joo, M. (October 15, 2013). Trend in U.S.-Born Dropouts' GED and Postsecondary Degree Acquisition: Differences by Gender and Race/Ethnicity. *Journal of the Society for Social Work and Research, 4,* 3, 171-181.

Kim, D. H., & Schneider, B. L. (December 01, 2005). Social Capital in Action: Alignment of Parental Support in Adolescents' Transition to Postsecondary Education. *Social Forces, 84,* 2, 1181-1206.

Kaufman, P. (January 01, 2005). Middle-Class Social Reproduction: The Activation and Negotiation of Structural Advantages. *Sociological Forum, 20,* 2, 245-270.

Lareau, A. (2011). *Unequal childhoods: Class, race, and family life*. Berkeley: University of California Press.

Lichter, D. T., Cornwell, G. T., & Eggebeen, D. J. (March 01, 1993). Harvesting Human Capital: Family Structure and Education Among Rural Youth¹. *Rural Sociology, 58,* 1, 53-75.

London, H. B. (February 01, 1989). Breaking Away: A Study of First-Generation College Students and Their Families. *American Journal of Education, 97,* 2, 144-170.

London, H. B. (March 08, 1993). Transformations: Cultural challenges faced by first-generation students. *New Directions for Community Colleges, 1992,* 80, 5-11.

London, H. B. (November 01, 1996). How College Affects First-Generation Students. *About Campus, 1,* 5, 9.

Lovenheim, M.F., & Lockwood Reynolds, C. (2011). Changes in Postsecondary Choice by Ability and Income: Evidence from the National longitudinal Surveys of Youth. *Journal of Human Capital, 5,* 1, 70-109.

Lubrano, A. (2004). *Limbo: Blue-collar roots, white-collar dreams*. Hoboken, NJ: Wiley.

McClelland, K. (April 01, 1990). Cumulative Disadvantage Among the Highly Ambitious. *Sociology of Education, 63,* 2, 102-121.

Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (May 01, 2004). First-Generation College Students: Additional Evidence on College Experiences and Outcomes. *Journal of Higher Education, 75,* 3, 249.

Pirog, M. A., & Magee, C. (September 01, 1997). High School Completion: The Influence of Schools, Families, and Adolescent Parenting. *Social Science Quarterly (university of Texas Press), 78,* 3.)

Ream, R. K., & Palardy, G. J. (January 01, 2008). Reexamining Social Class Differences in the Availability and the Educational Utility of Parental Social Capital. *American Educational Research Journal, 45,* 2, 238-273.

Redford, J., Johnson, J. A., & Honnold, J. (January 01, 2009). Parenting Practices, Cultural Capital and Educational Outcomes: The Effects of Concerted Cultivation on Academic Achievement. *Race, Gender & Class, 16,* 25-44.

Richardson, G. S., Lawrence-Brown, D., & Paige, S. M. (January 01, 2004). Rejecting Pygmalion: The Social and Cultural Capital of Working-Class Women Ph.D. Students. *Race, Gender & Class, 11,* 3, 36-53.

Roscigno, V. J., & Crowley, M. L. (June 01, 2001). Rurality, Institutional Disadvantage, and Achievement/Attainment. *Rural Sociology, 66,* 2, 268-93.

Roscigno, V. J., Tomaskovic-Devey, D., & Crowley, M. L. (June 01, 2006). Education and the Inequalities of Place. *Social Forces, 84,* 4, 2121-2145.

Stampnitzky, L. (January 01, 2006). How does "culture" become "capital"? Cultural and institutional struggles over "character and personality" at Harvard. *Sociological Perspectives, 49,* 4.)

Sullivan, A. (January 01, 2001). Cultural Capital and Educational Attainment. *Sociology, 35,* 4, 893-912.

Teachman, J. D. (January 01, 1987). Family background, educational resources, and educational attainment. *American Sociological Review, 52,* 4.)

Teachman, J. D., Paasch, K., & Carver, K. (January 01, 1997). Social Capital and the Generation of Human Capital. *Social Forces, 75,* 4, 1343-1359.

Terenzini, P. T., Springer, L., Yaeger, P. M., Pascarella, E. T., & Nora, A. (February 01, 1996). First-generation college students: Characteristics, experiences, and cognitive development. *Research in Higher Education : Journal of the Association for Institutional Research, 37,* 1, 1-22.

Tokarczyk, M. M., & Fay, E. A. (1993). *Working-class women in the academy: Laborers in the knowledge factory*. Amherst, Mass: University of Massachusetts Press.

Torche, Florencia. "Is A College Degree Still The Great Equalizer? Intergenerational Mobility Across Levels Of Schooling In The United States." *American Journal Of Sociology* 117.3 (2011): 763-807.

Venezia, A., & Jaeger, L. (June 06, 2013). Transitions from High School to College. *Future of Children, 23,* 1, 117-136.

Weiss, H. E. (May 01, 2012). The Intergenerational Transmission of Social Capital: A Developmental Approach to Adolescent Social Capital Formation*. *Sociological Inquiry, 82,* 2, 212-235.

Wildhagen, T. (January 01, 2009). Why Does Cultural Capital Matter for High School Academic Performance? An Empirical Assessment of Teacher-Selection and Self-Selection Mechanisms as Explanations of the Cultural Capital Effect. *The Sociological Quarterly, 50,* 1, 173-200.

Wilkins, A. C. (July 01, 2014). Race, Age, and Identity Transformations in the Transition from High School to College for Black and First-generation White Men. *Sociology of Education, 87,* 3.)

Wolniak, G. C., & Engberg, M. E. (August 01, 2010). Academic Achievement in the First Year of College: Evidence of the Pervasive Effects of the High School Context. *Research in Higher Education : Journal of the Association for Institutional Research, 51,* 5, 451-467.